



Reliability Data Report Product Family R423

LT1490A / LT1491A / LT1678 / LT1679 /
LT1716 / LT1880 / LT1990 / LT1991 /
LT1996 / LT6010 / LT6011 / LT6012 /
LT6013 / LT6014 / LT6106 / LT6107

Reliability Data Report

Report Number: R423

Report generated on: Tue Apr 16 14:44:37 PDT 2013

OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) ¹	No. of FAILURES _{2,3}
QFN/DFN	154	0318	0421	154	0
PLASTIC DIP	308	9952	9952	308	0
SOIC/SOT/MSOP	1970	9950	1202	1890	0
Totals	2,432	-	-	2,352	0

HIGHLY ACCELERATED STRESS TEST AT +131 DEG C / 85% RH

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+85°C) ⁴	No. of FAILURES
SOIC/SOT/MSOP	112	0727	0727	215	0
Totals	112	-	-	215	0

PRESSURE COOKER TEST AT 15 PSIG , +121 DEG C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	3284	0231	1010	728	0
SSOP/TSSOP	100	0331	0331	33	0
PLASTIC DIP	300	0007	0310	22	0
SOIC/SOT/MSOP	11142	9950	1120	1064	0
Totals	14,826	-	-	1,847	0

TEMP CYCLE FROM -65 TO 150 DEG C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	3687	0231	1110	1797	0
SSOP/TSSOP	50	0331	0331	50	0
SOIC/SOT/MSOP	8233	0013	1120	2728	0
PLASTIC DIP	150	0310	0732	35	0
Totals	12,120	-	-	4,610	0

THERMAL SHOCK FROM -65 TO 150 DEG C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	2398	0231	1110	1728	0
SSOP/TSSOP	50	0331	0331	50	0
SOIC/SOT/MSOP	6821	0115	1120	1979	0
PLASTIC DIP	50	0732	0732	5	0
Totals	9,319	-	-	3,762	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =0.78 FITS

(3) Mean Time Between Failure in Years = 146461.61

(4) Assumes 20X Acceleration from 85 °C to +131 °C

Note 1: 1 FIT = 1 Failure in One Billion Hours.

Note 2: HAST, Temp Cycle & Thermal Shock are subjected to J-STD-020 MSL 3/4 Preconditioning

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HIGH TEMPERATURE BAKE AT 175 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
SOIC/SOT/MSOP	150	1019	1019	150	0
Totals	150	-	-	150	0
HIGH TEMPERATURE BAKE AT 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
SOIC/SOT/MSOP	213	0819	1019	213	0
Totals	213	-	-	213	0